

10

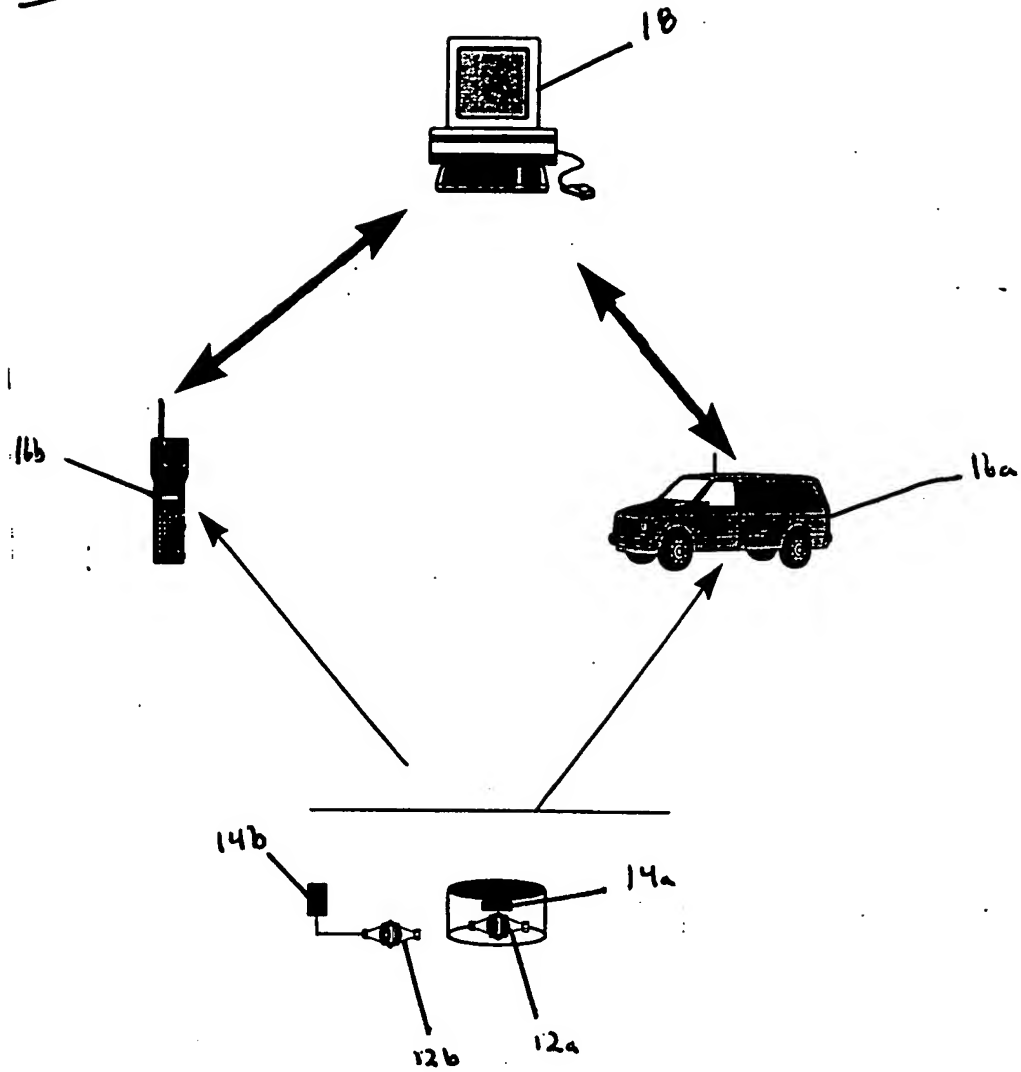
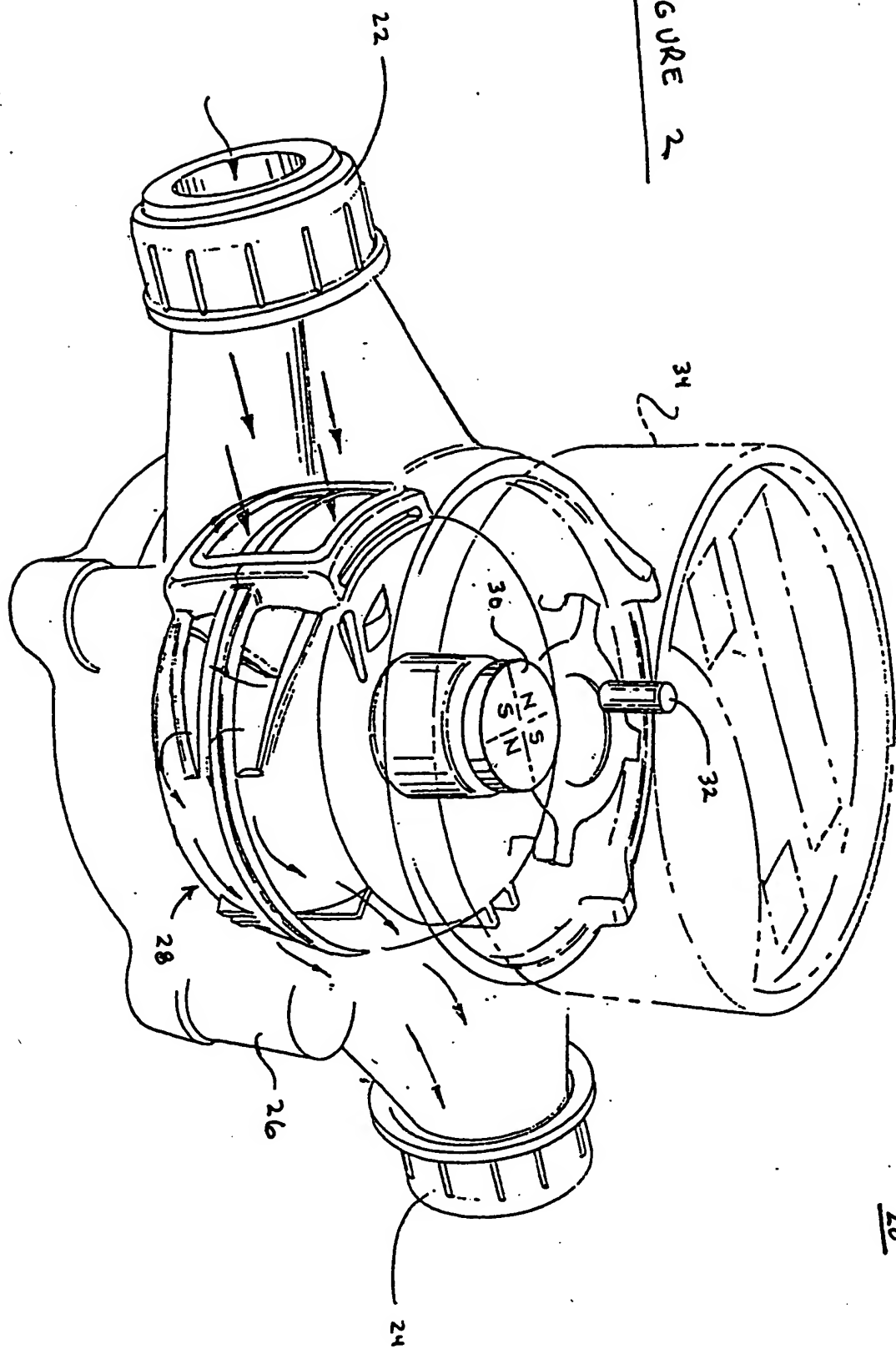


FIGURE 1

FIGURE 2



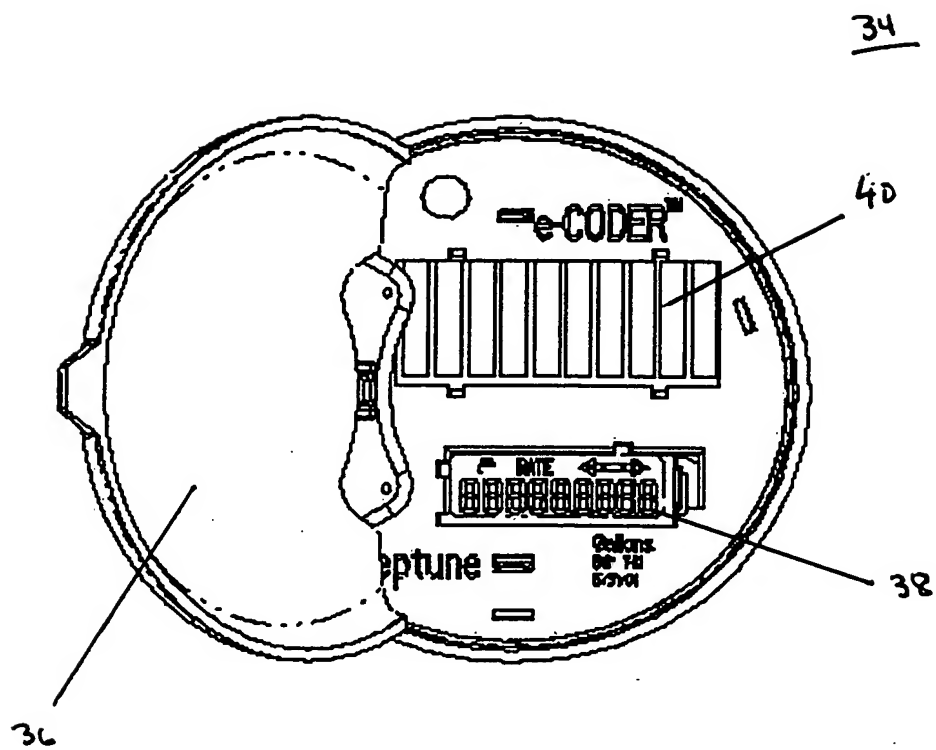


Figure 3

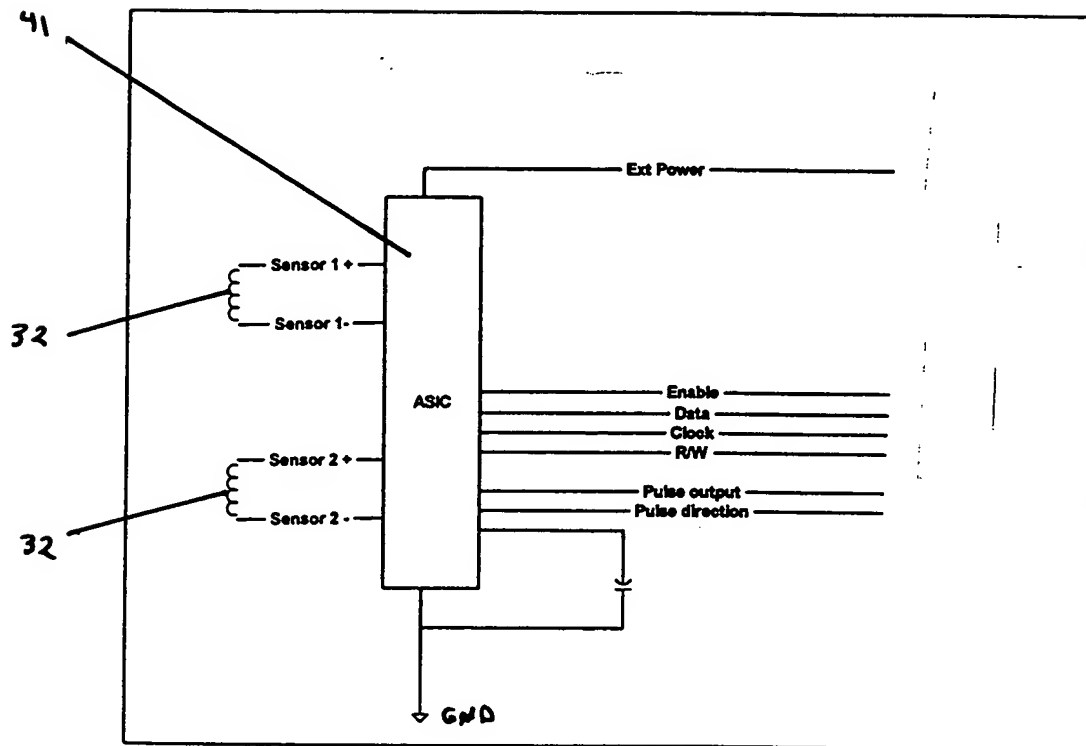


Figure 4

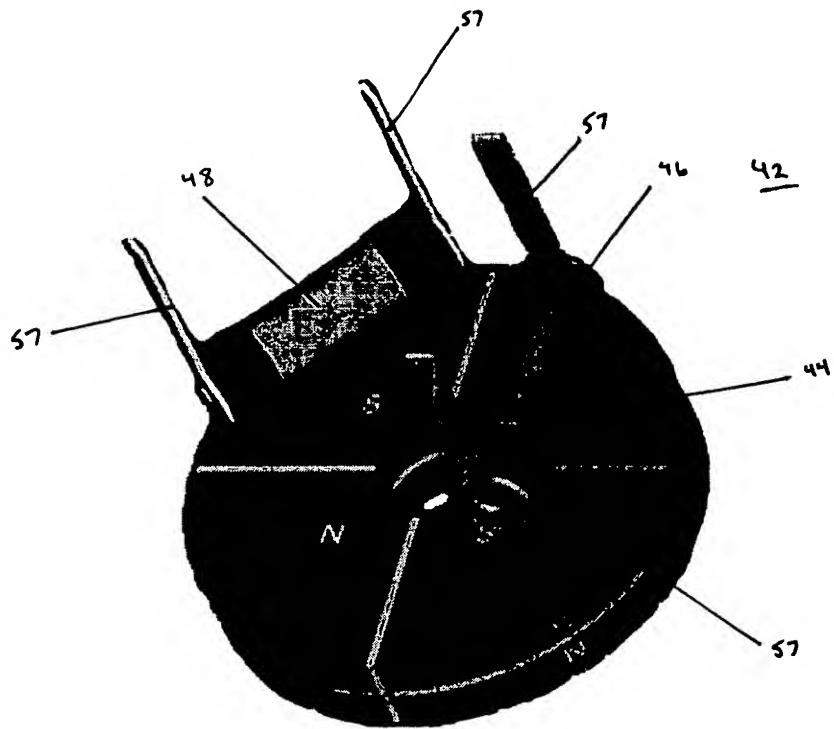


Figure 5a

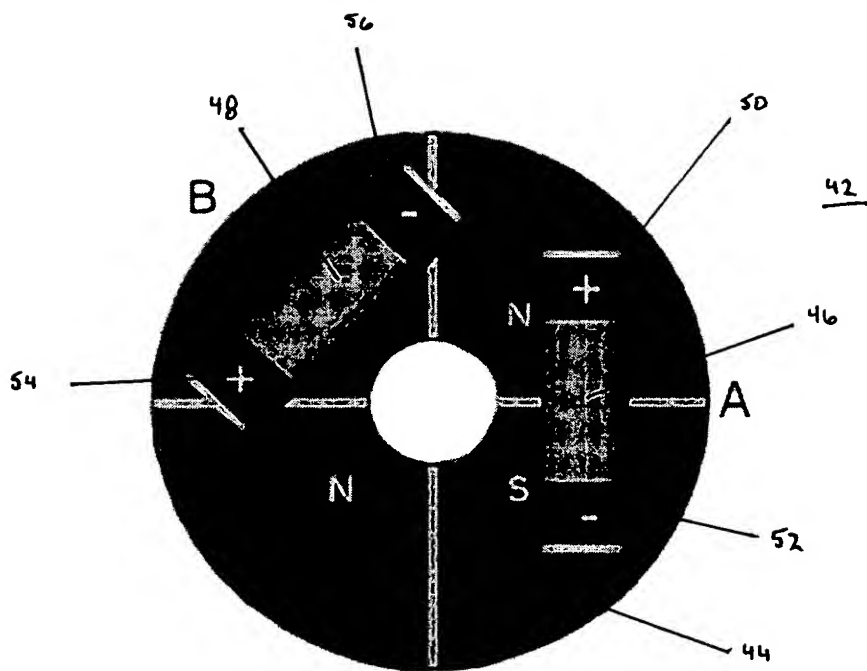


Figure 5b

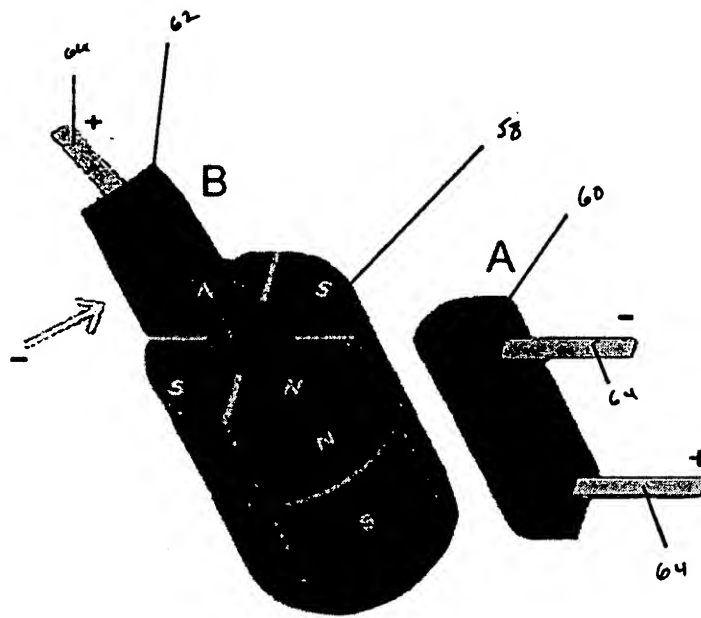


Figure 6a

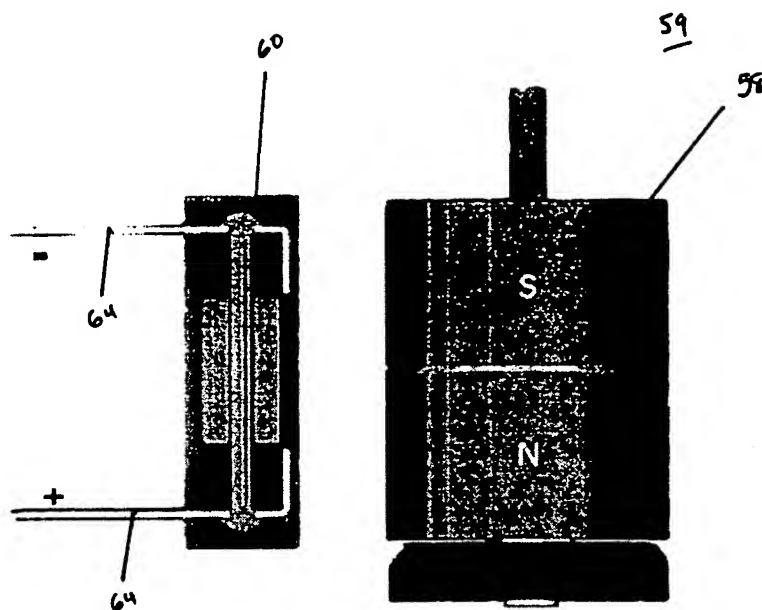


Figure 6b

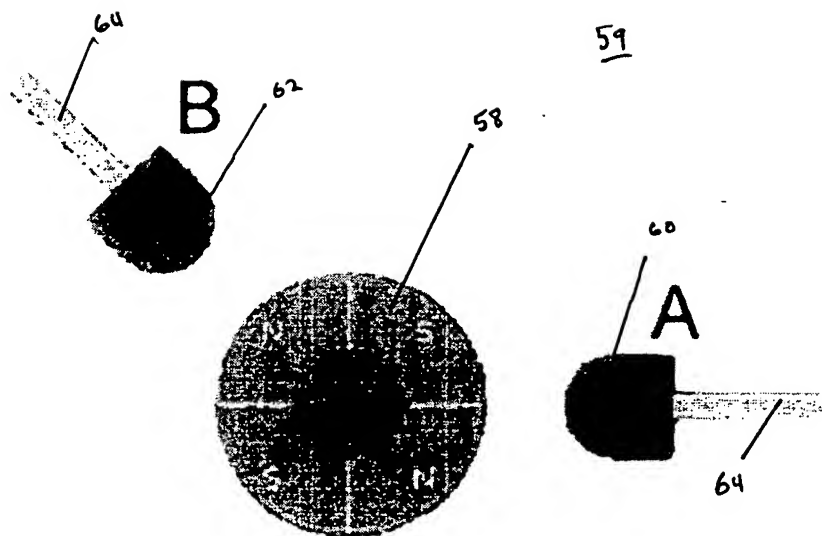
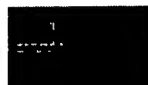


Figure 6c

N → S



S → N



Figure 7

A



B



Magnet
Angle

0 45 90 135 180 225 270 315 0 45 90 135 180 225 270 315

Figure 8

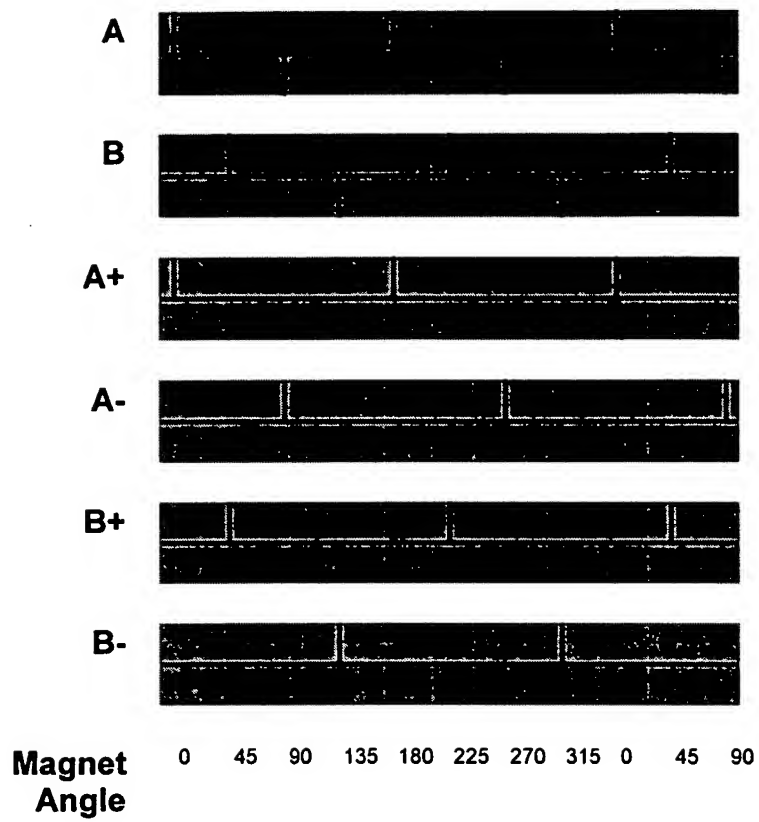


Figure 9

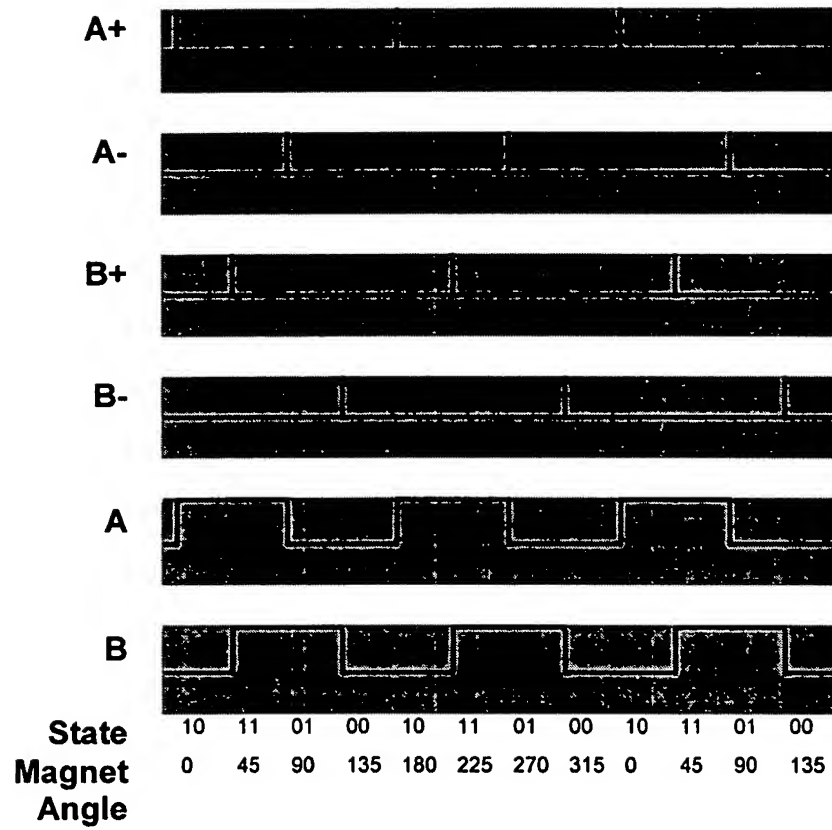


Figure 10

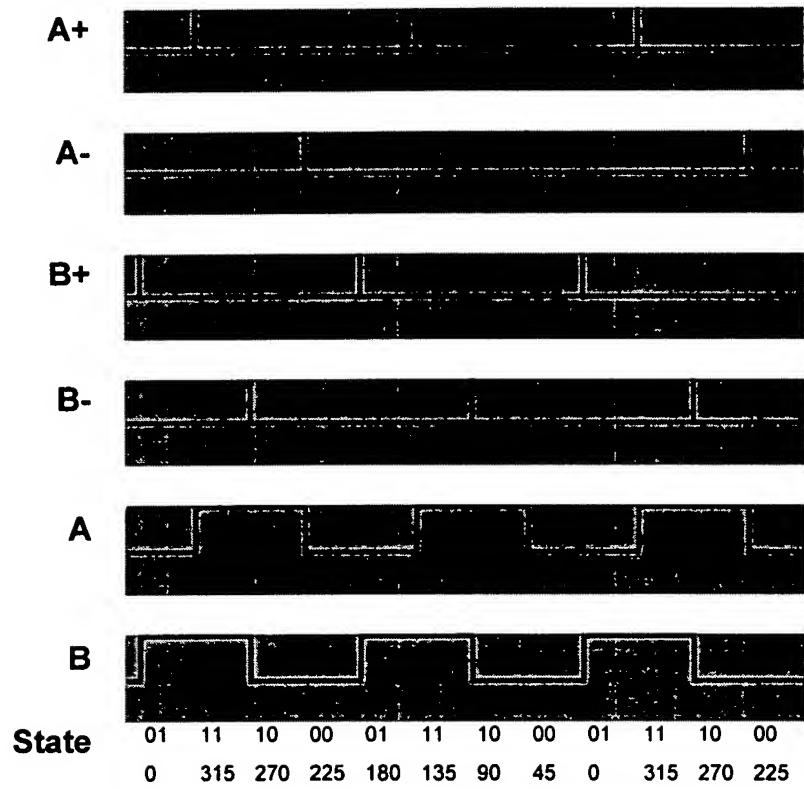


Figure 11

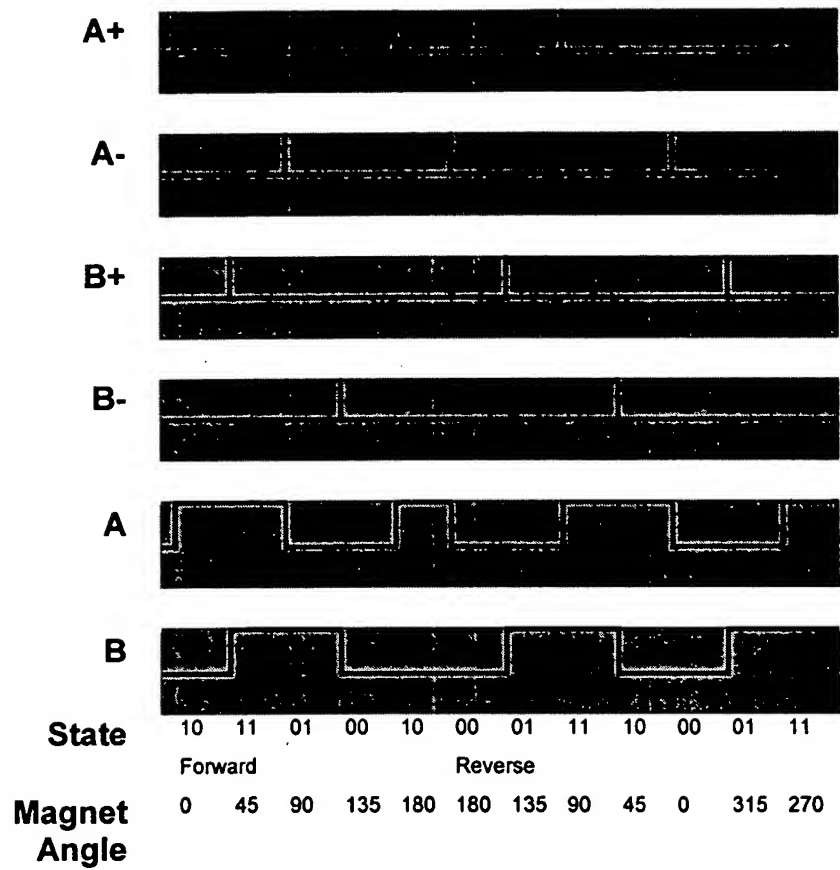
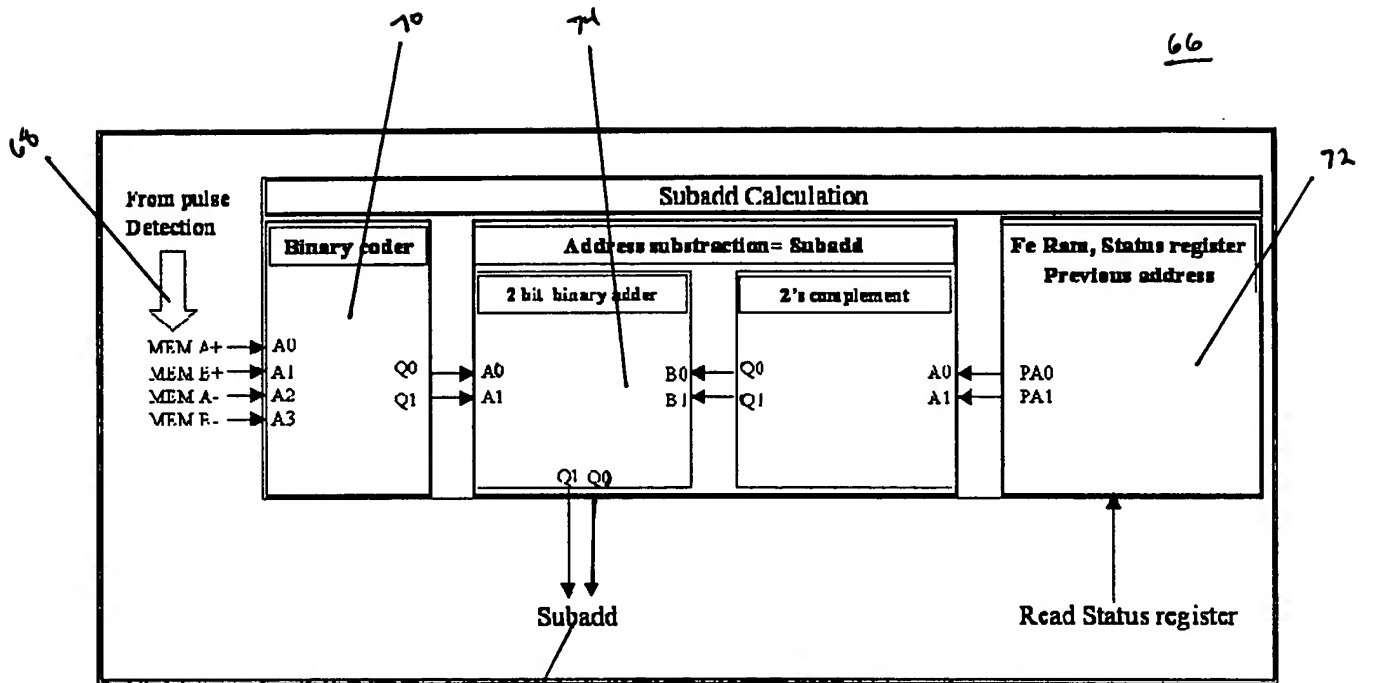


Figure 12



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Sensor input	Pulse detection output	Flow direction input
Sensor A+	MEM A+	A0
Sensor B+	MEM B+	A1
Sensor A-	MEM A-	A2
Sensor B-	MEM B-	A3

Figure 14a

Sensor input	Binary address NA
Sensor A+	00 (0 decimal)
Sensor B+	01 (1 decimal)
Sensor A-	10 (2 decimal)
Sensor B-	11 (3 decimal)

Figure 14b

Sensor input	Binary address NA
Sensor A+	00 (0 decimal)
Sensor B+	01 (1 decimal)
Sensor A-	10 (2 decimal)
Sensor B-	11 (3 decimal)
Sensor A+	00 (0 decimal)
Sensor B+	01 (1 decimal)
Sensor A-	10 (2 decimal)

Figure 15a

Sensor input	Binary address NA
Sensor A+	00 (0 decimal)
Sensor B-	11 (3 decimal)
Sensor A-	10 (2 decimal)
Sensor B+	01 (1 decimal)
Sensor A+	00 (0 decimal)
Sensor B-	11 (3 decimal)
Sensor A-	10 (2 decimal)

Figure 15b

Occurring Pulse	New address NA	Previous address PA	Subadd
Sensor A+	00	11	$00 - 11 = 01$
Sensor B+	01	00	$01 - 00 = 01$
Sensor A-	10	01	$10 - 01 = 01$
Sensor B-	11	10	$11 - 10 = 01$
Sensor A+	00	11	$00 - 11 = 01$
Sensor B+	01	00	$01 - 00 = 01$
Sensor A-	10	01	$10 - 01 = 01$
Sensor B-	11	10	$11 - 10 = 01$

Figure 16a

Occurring Pulse	New address NA	Previous address PA	Subadd
Sensor A+	00	01	$00 - 01 = 11$
Sensor B-	11	00	$11 - 00 = 11$
Sensor A-	10	11	$10 - 11 = 11$
Sensor B+	01	10	$01 - 10 = 11$
Sensor A+	00	01	$00 - 01 = 11$
Sensor B-	11	00	$11 - 00 = 11$
Sensor A-	10	11	$10 - 11 = 11$
Sensor B+	01	10	$01 - 10 = 11$

Figure 16b

Pulse	New address	Previous address	Subaddr
Sensor A+	00		
Sensor B+	Missing	*****	*****
Sensor A-	10	00	$10 - 00 = 10$
Sensor B+	01		
Sensor A-	Missing	*****	*****
Sensor B-	11	01	$11 - 01 = 10$
Sensor A-	10		
Sensor B-	Missing	*****	*****
Sensor A+	00	10	$00 - 10 = 10$
Sensor B-	11		
Sensor A+	Missing	*****	*****
Sensor B+	01	11	$01 - 11 = 10$

Figure 17a

Pulse	New address	Previous address	Subaddr
Sensor A+	00		
Sensor B-	Missing	*****	*****
Sensor A-	10	00	$10 - 00 = 10$
Sensor B-	11		
Sensor A-	Missing	*****	*****
Sensor B+	01	11	$01 - 11 = 10$
Sensor A-	10		
Sensor B+	Missing	*****	*****
Sensor A+	00	10	$00 - 10 = 10$
Sensor B+	01		
Sensor A+	Missing	*****	*****
Sensor B-	11	01	$11 - 01 = 10$

Figure 17b

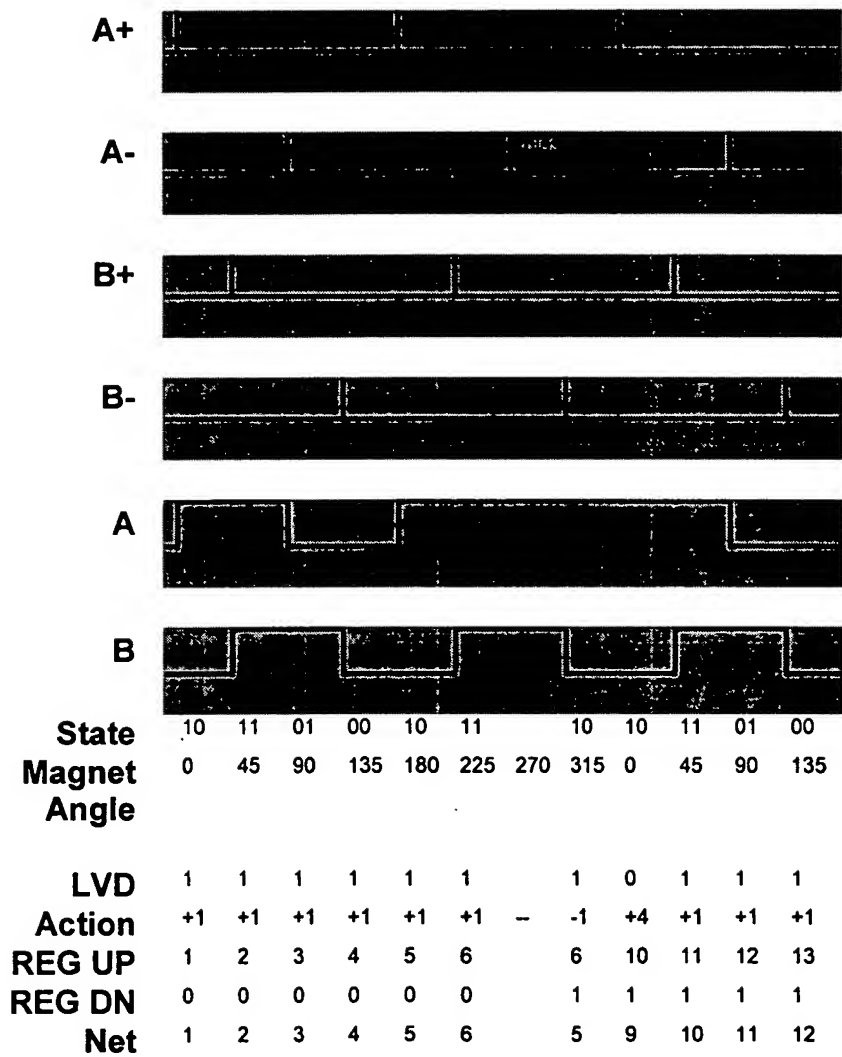


Figure 18

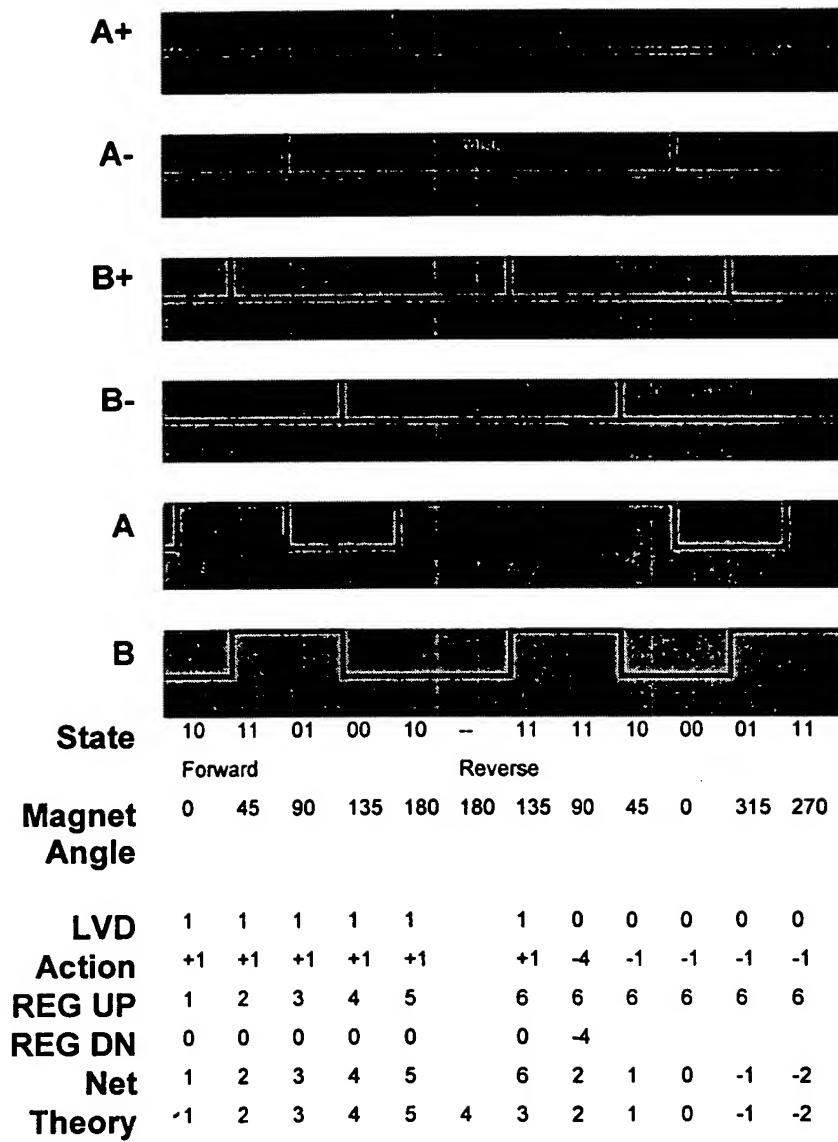


Figure 19

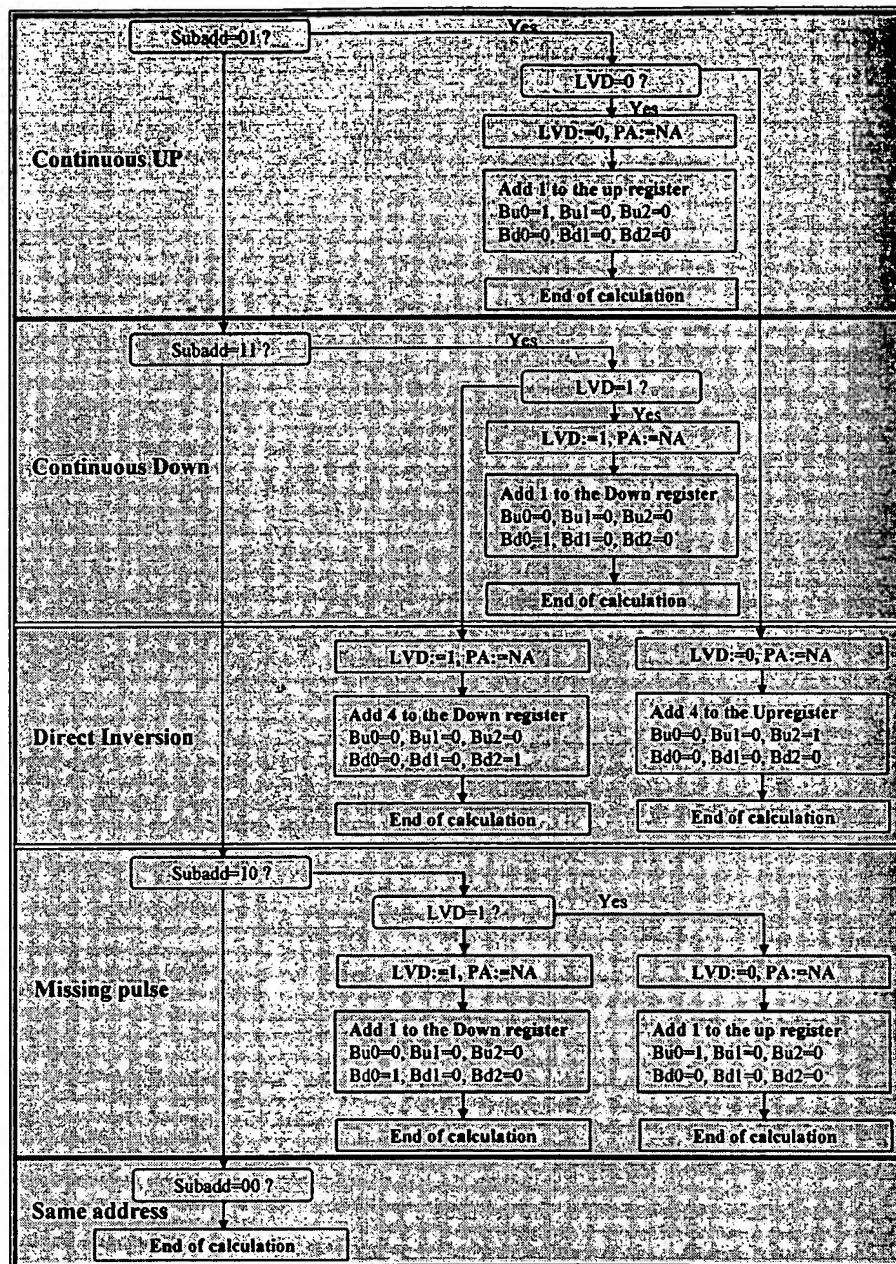


Figure 20